Serial No. 10/536,512 May 25, 2005

Filed

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## Amendments to the claims

This following listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) An organic anti-reflective composition comprising a crosslinking agent, a light absorbing agent, a thermal acid generator, an organic solvent and an adhesivity enhancer represented by the following Chemical Formula 1:

## Chemical Formula 1

wherein

a is the degree of polymerization, ranging from 30 to 400,

wherein said light absorbing agent is a compound represented by the following Chemical Formula 3:

wherein ℓ, m and n are molar ratios: ℓ ranging from 0.1 to 0.5, m ranging from 0.05 to 0.5, n ranging from 0.1 to 0.7, and  $\ell + m + n = 1$ ; and c is the degree of polymerization, ranging from 10 to 400.

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(Original) The organic anti-reflective composition according to Claim 1, which comprises:

- (a) 100 parts by weight of crosslinking agent:
- (b) 30 to 400 parts by weight of light absorbing agent;
- (c) 10 to 200 parts by weight thermal acid generator;
- (d) 30 to 400 parts by weight of adhesivity enhancer represented by Chemical Formula 1; and
  - (e) 1,000 to 10,000 parts by weight of organic solvent.
- (Original) The organic anti-reflective composition according to Claim 2, wherein said crosslinking agent is the compound represented by the following Chemical Formula 2:

## Chemical Formula 2

wherein

b is the degree of polymerization, ranging from 10 to 100;

each of R1 and R2 is C1 to C4 alkyl; and

R<sub>3</sub> is hydrogen or methyl.

- 4. (Cancelled)
- (Currently amended) The organic anti-reflective composition according to Claim 2, wherein said thermal acid generator is the compound represented by the following Chemical Formula 4:

# Chemical Formula 4

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6. (Original) A patterning method comprising the steps of

- (a) coating the organic anti-reflective composition according to Claim 1 on a part to be etched;
- (b) crosslinking said organic anti-reflective composition by baking to form an organic anti-reflective film;
- (c) coating a photoresist on said organic anti-reflective film, and exposing and developing the same to form a photoresist pattern; and
  - (d) etching the organic anti-reflective film with said photoresist pattern as mask.
- (Original) The patterning method according to Claim 6, wherein said baking of the step (b) is carried out at 150 to 300 °C for 1 to 5 minutes.
- 8. (Original) The patterning method according to Claim 6, wherein baking is further carried out before and/or after exposure of the step (c).
- (Original) The patterning method according to Claim 8, wherein said baking is carried out at 70 to 200 °C.
- 10. (Original) The patterning method according to Claim 6, wherein far UV such as F<sub>2</sub> laser (157 nm), ArF (193 nm), KrF (248 nm) and EUV (extremely ultraviolet); Ebeam; X-ray; or ion beam is used as exposure light source in the step (c).

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 (Previously presented) A semiconductor device prepared by any method of Claim 6.

- (Previously presented) A semiconductor device prepared by any method of Claim 7.
- (Previously presented) A semiconductor device prepared by any method of Claim 8.
- (Previously presented) A semiconductor device prepared by any method of Claim 9.
- (Previously presented) A semiconductor device prepared by any method of Claim 10.
- 16. (New) An organic anti-reflective composition comprising a crosslinking agent, a light absorbing agent, a thermal acid generator, an organic solvent and an adhesivity enhancer represented by the following Chemical Formula 1:

## Chemical Formula 1

wherein

a is the degree of polymerization, ranging from 30 to 400, wherein said thermal acid generator is a compound represented by the following

Chemical Formula 4:

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- (New) The organic anti-reflective composition according to Claim 16, which comprises:
  - (a) 100 parts by weight of crosslinking agent;
  - (b) 30 to 400 parts by weight of light absorbing agent;
  - (c) 10 to 200 parts by weight thermal acid generator;
- (d) 30 to 400 parts by weight of adhesivity enhancer represented by Chemical Formula 1; and
  - (e) 1,000 to 10,000 parts by weight of organic solvent.
- 18. (New) The organic anti-reflective composition according to Claim 17, wherein said crosslinking agent is the compound represented by the following Chemical Formula 2:

#### Chemical Formula 2

$$R_{10}$$
  $R_{2}$ 

wherein

b is the degree of polymerization, ranging from 10 to 100; each of R<sub>1</sub> and R<sub>2</sub> is C<sub>1</sub> to C<sub>4</sub> alkyl; and

R3 is hydrogen or methyl.

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19. (New) A patterning method comprising the steps of

- (a) coating the organic anti-reflective composition according to Claim 16 on a part to be etched;
- (b) crosslinking said organic anti-reflective composition by baking to form an organic anti-reflective film;
- (c) coating a photoresist on said organic anti-reflective film, and exposing and developing the same to form a photoresist pattern; and
  - (d) etching the organic anti-reflective film with said photoresist pattern as mask.
- 20. (New) The patterning method according to Claim 19, wherein said baking of the step (b) is carried out at 150 to 300 °C for 1 to 5 minutes.
- 21. (New) The patterning method according to Claim 20, wherein baking is further carried out before and/or after exposure of the step (c).